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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,713	07/19/2006	Suhung-Gwon Kim	2443.0030000	9873

26111 7590 12/22/2010  
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WASHINGTON, DC 20005

EXAMINER
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RAJ, RAJIV J

ART UNIT	PAPER NUMBER
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3686

MAIL DATE	DELIVERY MODE
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12/22/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,713	<b>Applicant(s)</b> KIM, SUHUNG-GWON	
	<b>Examiner</b> RAJIV J. RAJ	<b>Art Unit</b> 3686	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-21 & 28 is/are pending in the application.
- 4a) Of the above claim(s)    is/are withdrawn from consideration.
- 5) ☐ Claim(s)        is/are allowed.
- 6) ☒ Claim(s) 13-21 & 28 is/are rejected.
- 7) ☐ Claim(s)        is/are objected to.
- 8) ☐ Claim(s)        are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on    is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No.       .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>      </u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                               | 5) <input type="checkbox"/> Notice of Informal Patent Application                               |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>      </u> | 6) <input type="checkbox"/> Other: <u>      </u>  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 30, 2009 has been entered.

### ***Status of Claims***

2. This action is in reply to the application filed on 20 September 2010.
3. Claims 24-27, 29, 31 & 33 have been withdrawn.
4. Claims 1-12, 22-23, 30 & 32 have been canceled.
5. Claims 13, 16-17 & 28 have been amended.
6. Claims 13-21 & 28 currently pending and have been examined.

### ***Priority***

7. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

### ***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. The 35 U.S.C. 112 rejection is withdrawn in light of applicant's amendments.
10. As per claim 13-21 & 28 the claim language "if" is a conditional statement without corresponding else statements. If these limitations are not performed, then there is no defined process to be performed.

The examiner understands that in these claims, the open conditional language causes these limitations to be omitted.

11. Processes can be considered as a series of steps to achieve a claimed task. When executing a process, each step is performed. However, upon reaching an "IF-THEN-ELSE" logical block, each TRUE/FALSE option is equally possible. A process step that includes only an "IF-THEN" logical question means that THEN result only occurs when the answer is TRUE. An answer equally possible is FALSE and therefore the THEN result will not occur. The Examiner takes further guidance from the MPEP § 2106(II)C on how to handle these logical blocks. Specifically, "Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation." It is the Examiner's position that when a claimed invention includes a logical block that provides another choice (FALSE), then the resulting action is not limiting as it may never be performed.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 13-21 & 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross, Jr. et al.(US 5823948) (hereinafter Ross) in view of Pories et al. (US 2002/0082868 A1) (hereinafter Pories) in further view of "A Hierarchical Data Management Facility For Clinical Record Applications" (hereinafter NPL).

### **Claim 13**

#### **Ross as shown, discloses the following limitations:**

- *using an input device to select or check one of the standard patient-language symptoms to enter the selected patient-language symptom in the chief complaint field so as to generate a new medical record that identifies the selected patient-language symptom as a chief complaint;* (see at least Ross Column:2 Lines:49-67 Column:3 Lines:1-33 Claim:2)
- *wherein the standard patient-language symptoms are accessed from a database;* (see at least Ross Claim:2,4,6)
- *the standard patient-language symptoms are mapped to standard codes;* (see at least Ross Column:12 Lines:35-47)
- *stores the standard patient-language cardinal symptoms;* (see at least Ross Claims:1-2,4-6)
- *retrieving a concept that is similar or broader to the patient language symptom if the patient-language symptom does not exactly match the imparted concept identifier of the standard code;* (see at least Ross Column:8 Lines:57-67 Column:12 Lines:35-47 Fig:3 Items:105-112)

Ross does not disclose the following limitation, however Pories, as shown does:

- *displaying, using a processing device, standard patient-language symptoms on an interface of a display device as one of a selection item and a check item of a chief complaint field of a medical record;* (see at least Pories Fig:3 Items:40,41 Fig:7 Items:100-190 & related text)

- *wherein the standard patient-language symptoms are selected extracted patient-language terms used in existing medical records of patients regarding cardinal symptoms of the patients; (see at least Pories [0074-0078], Fig:13 Items:66b & related text)*
- *so as to be free from association with any particular medical record; (see at least Pories Fig:1A Items:10-20 & related text)*
- *symptoms; (see at least Pories [0106])*

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross because providing a means for incorporating medical records, medically symptomatic language & a displaying mechanism could be done by a person having ordinary skill in the art with undue experimentation or unexpected results in order to track and analyze medical data. (see at least Pories [0012-0017])

Ross/Pories does not disclose the following limitation, however NPL, as shown does:

- *imparting a concept identifier of a standard code to each of the standard patient-language symptoms; (NPL)*
- *classifying each of the mapped patient-language cardinal symptoms according to whether a concept of the patient-language symptom exactly matches or matches the imparted concept identifier of the standard code; (NPL)*

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the features of NPL into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories because providing a means identifiers and codes for patient language for a medical language database could be done by a person having ordinary skill in the art with undue experimentation or unexpected results in order to track and analyze medical data. (see at least NPL)

#### **Claim 14**

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Ross further discloses the following limitations:

- *the database also stores selected terms regarding diagnosis names, operation names, terms used upon writing of the status of patients by nurses, terms used upon writing of the status of the patients by doctors, prescription terms used by doctors, and medicine terms; (see at least Ross Column:2 Lines:49-66 Claim:2 Fig:2 Items:101-111 & related text)*

**Claim 15**

The combination of Ross/Pories/NPL disclose all of the limitations of claim 14. Ross further discloses the following limitations:

- *using the input device to perform a standard statement sentence write function that combines the selected terms used upon writing of the status of patients by nurses into a standard statement sentence used to write a medical record; (see at least Ross Column:2 Lines:49-66 Column:9 Lines:20-41 Column:13 Lines:48-58 Fig:2 Items:101-111 Fig:3 Items:107-113 & related text)*

**Claim 16**

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Ross further discloses the following limitations:

- *as selection items applicable to writing of a sentence in the medical record; (see at least Ross Column:5 Lines:52-56 Column:9 Lines:20-41)*

Ross/Pories/NPL does not disclose the following limitation, however Pories, as shown does:

- *displaying further comprises displaying the standard patient-language symptoms; (see at least Pories Fig:3 Items:40,41 Fig:7 Items:100-190 & related text)*

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross because providing a means for incorporating medical records, medically symptomatic language & a displaying mechanism could be done by a person having ordinary skill in the art with undue experimentation or unexpected results in order to track and analyze medical data. (see at least Pories [0012-0017])

**Claim 17**

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Ross further discloses the following limitations:

- *using the input device to modify, delete, or add to the standard patient-language . . . in the database;* (see at least Ross Fig:3 Items:101-113 & related text)

Ross/Pories/NPL does not disclose the following limitation, however Pories, as shown does:

- *symptoms;* (see at least Pories [106])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross because providing a means for incorporating medical records, medically symptomatic language & a displaying mechanism could be done by a person having ordinary skill in the art with undue experimentation or unexpected results in order to track and analyze medical data. (see at least Pories [0012-0017])

#### **Claim 18**

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Pories further discloses the following limitations:

- *communicating over a network with a doctor terminal, a nurse terminal, an examination room staff terminal, and a general medical affairs terminal to perform the displaying;* (see at least Pories Fig:1A-B Items:10-20 Fig:3 Items:40,41 Fig:7 Items:100-190 Fig:9-18 Items:24, 25d, 60a-80 & related text)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross because providing a means for incorporating medical records, medically symptomatic language & a displaying mechanism could be done by a person having ordinary skill in the art with undue experimentation or unexpected results in order to track and analyze medical data. (see at least Pories [0012-0017])

#### **Claim 19**



The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Pories further discloses the following limitations:

- *the selected extracted patient-language terms are from discharge summaries;* (see at least Pories [0074-0078])

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross because providing a means for incorporating medical records, medically symptomatic language & a displaying mechanism could be done by a person having ordinary skill in the art with undue experimentation or unexpected results in order to track and analyze medical data. (see at least Pories [0012-0017])

#### **Claim 20**

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Pories further discloses the following limitations:

- *the selected extracted patient-language terms are separated into main concepts, concept qualifiers, and concept modifiers;* (see at least Pories Fig:1A-B Items:14-25e & related text)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross because providing a means for incorporating medical records, medically symptomatic language & a displaying mechanism could be done by a person having ordinary skill in the art with undue experimentation or unexpected results in order to track and analyze medical data. (see at least Pories [0012-0017])

#### **Claim 21**

The combination of Ross/Pories/NPL disclose all of the limitations of claim 20. Ross further discloses the following limitations:

- *the main concepts are aligned on a spelling and concept basis; (see at least Ross Fig:3 Items:105-114 & related text)*

**Claim 28****Ross as shown, discloses the following limitations:**

- *selecting or checking one of the standard patient-language cardinal symptoms to enter the selected patient-language symptom in the chief complaint field so as to generate a new medical record that identifies the selected patient-language symptom as a chief complaint; (see at least Ross Column:2 Lines:49-67 Column:3 Lines:1-33 Claim:2)*
- *wherein the standard patient-language symptoms are accessed from a database; (see at least Ross Claim:2,4,6)*
- *the standard patient-language . . . are mapped to standard codes; (see at least Ross Column:12 Lines:35-47)*
- *stores the standard patient-language cardinal symptoms; (see at least Ross Claims:1-2,4-6)*
- *retrieving a concept that is similar or broader to the patient language symptom if the patient-language symptom does not exactly match the imparted concept identifier of the standard code; (see at least Ross Column:8 Lines:57-67 Column:12 Lines:35-47 Fig:3 Items:105-112)*

Ross does not disclose the following limitation, however Pories, as shown does:

- *displaying standard patient-language symptoms on an interface of a display device as one of a selection item and a check item of a chief complaint field of a medical record; (see at least Pories Fig:3 Items:40,41 Fig:7 Items:100-190 & related text)*
- *wherein the standard patient-language symptoms are selected extracted patient-language terms used in existing medical records of patients regarding symptoms of the patients; (see at least Pories [0074-0078], Fig:13 Items:66b & related text)*
- *so as to be free from association with any particular medical record; (see at least Pories Fig:1A Items:10-20 & related text)*
- *symptoms; (see at least Pories [0106])*

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross because providing a means for incorporating medical records, medically symptomatic language & a displaying mechanism could be done by a person having ordinary skill in the art with undue experimentation or unexpected results in order to track and analyze medical data. (see at least Pories [0012-0017])

Ross/Pories does not disclose the following limitation, however NPL, as shown does:

- *imparting a concept identifier of a standard code to each of the standard patient-language symptoms; (NPL)*
- *classifying each of the mapped patient-language symptoms according to whether a concept of the patient-language symptom exactly matches or matches the imparted concept identifier of the standard code; (NPL)*

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the features of NPL into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories because providing a means identifiers and codes for patient language for a medical language database could be done by a person having ordinary skill in the art with undue experimentation or unexpected results in order to track and analyze medical data. (see at least NPL)

### ***Response to Arguments***

15. Applicant's arguments received on 16 September 2010 have been fully considered but they are not persuasive.

16. In response to applicant's arguments supporting the "Traversal of Restriction Requirement", the

17.

18. In response to applicant's arguments supporting the claim language: "*retrieving a concept that is similar or broader to the patient language symptom if the patient-language symptom does not exactly match the imparted concept identifier of the standard code*" the Examiner points out that this language was not addressed previously because the language was just added by the applicant and is appropriately addressed in the current Office Action above.
19. In response to applicant's argument that the cited prior art is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention.
20. Applicant's arguments for claim 24-27, 31 & 33 are based on substantially similar arguments for claims 13-21 & 28 and thus are Applicant's election with traverse is acknowledged. The traversal is on the ground(s) that the additional search does not require undue burden on the part of the Examiner. This is not found persuasive because the scope of the searches for both groups are different. The distinction between Group I & Group II is one if directing towards "extracting" while the second group is directed towards "mapping" & "classifying". The requirement is still deemed proper and is therefore made FINAL.
21. Applicant's arguments for claim 14-21 are based on their dependency on claim 13, and thus are rejected for the reasons stated above.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Rajiv J. Raj** whose telephone number is **(571) 270-3930**. The Examiner can normally be reached on Monday-Friday, 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **Jerry O'Connor** can be reached at **571.272.6787**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

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Date: 12/03/10

/RJR/

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